REMARKS

Reconsideration and further examination is respectfully requested.

Double Patenting Rejection

Claims 1-12 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of co-pending application serial number 09/752112. Because the language of the claims in both applications is still at issue, Applicants have delayed the filing of a terminal disclaimer at this time, but will do so if deemed necessary to overcome this rejection in the future.

Rejections under 35 U.S.C. §112, second paragraph

Claims 1-12 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention. Applicants have amended the claims, and submit that the claims in amended form are not definite. It is therefore respectfully requested that the rejection be withdrawn.

Rejections under 35 U.S.C. §103

Claims 1-3 and 7-9:

Claims 1-3 and 7-9 were rejected under 35 U.S.C. §103(a) as being unpatentable over Moore et al (U.S. 6,282,581) in view of Hedge (U.S. 6,570,875).

Moore:

Moore describes a communications framework operable to support remote method invocation in a distributed object environment. (Moore, Abstract). In particular, Moore

describes Figure 5 (a flow diagram illustrating the data flow of a remote method invocation), at

column 10, lines 15-53, in part as:

"... the remote method invocation involves two processes 101a and 101b. A client
301... seeks to invoke a method of an implementation object 309 – existing in the second
process 101b.... In step 1, the client 301 initiates the remote procedure call by issuing the
method "result=object.foobar(a,b,c)" on the Stub object 303... In step 2, the Stub object 303
converts this call to a distributed apply() function of the RPC_Transport 305. An intervening
step of using a Quality of Service (QOS) parameter to select which RPC_Transport 305 to use is
discussed below .... In step 3, the RPC_Client 311 establishes a protocol specific binding to the
RPC_Server 315 .... i.e., the protocol establishes a communication channel to the second
process, e.g., opens a socket, acquires a shared memory segment, or initializes an RS-232
port..."

Moore further describes, at columns 10- column 11, that a CallInfo object is marshaled

into the communication channel, and that the CallInfo object can be used to obtain QoS

parameters. Thus Moore effectively teaches that an object including any QoS parameters is

forwarded to the RPC_Server.

The Examiner states, at page 5 of the office action "... Moore does not explicitly teach

the method of claim 1, wherein the flow information including the socket number is sent to a

classifying router using a side channel and incorporated into the router sub system... Hedge

teaches the apparatus of claim 1 in which the flow channel information including the socket

number is sent to a classifying router using a side channel and incorporated into the router sub

system... It would have been obvious to one of ordinary skill in the art at the time the invention

was made to combine the teaching of Hedge with Moore because they both teach client server

systems using classifying routers to achieve differentiated service routing. Further Hedge

teaches that including the socket number with the flow information allows identifying the

application programs when classifying flows (Col. 9, lines 1-4 and 47-53).

No motivation for the combination suggested by the Examiner

In order to support a rejection under 35 U.S.C. §103, a motivation for the modifications suggested by the Examiner should be shown or suggested in the art. The proffered motivation is that 'including the socket number with the flow information allows identifying programs...' However Moore already provides a means for identifying programs, and it is unclear how the inclusion of a socket number would benefit Moore, as it already forwards information (a CallInfo Object) which allows it to gain information about the classification of the program. An important distinction, Applicant believes, is that Moore needs to invoke the CallInfo after the routine is received at the RPC server, rather than having the information on hand due to the side channel transfer, as recited in the claims of Applicants invention. Because no sufficient motivation for modifying Moore in this manner has been provided, it is respectfully submitted that a rejection under 35 U.S.C. §103 is improper, and should be withdrawn.

In addition, it is noted that Hedge describes systems and methods which use network layer communications. In contrast, Moore describes application layer communications. Because both references are drawn to different types of technologies, Applicants believe that it is unlikely that Moore would turn to any of the teachings of Hedge. Thus, for this reason as well Applicants submit that there is no motivation for the modification suggested by the Examiner.

Combination neither describes nor suggests the claimed invention

Assuming that a motivation can be found for modifying the references as suggested by the Examiner, Applicant submits that the combination still would not teach the limitations of the claims. The teachings of Moore have been described above. Hedge describes a method and apparatus for performing multiprotocol switching and routing, and is discussed in more detail below.

Hedge:

Hedge describes, in Figure 2, a multiprotocol switch which includes a switch module 60 and flow table 70. The switch module and flow table are preferably implemented together as an

application specific integrated circuit (ASIC). (Col. 2, lines 45-55, in part). At column 5, lines 7-12, Hedge states "... CPU 80 includes program and data memory for storing programs that are executed by CPU 80 and data needed by those programs. Such data can include routing tables and the like..." Hedge further states, at column 5, lines 39-50 "... switch module 60 continually monitors each of the ports for incoming traffic. When a data packet arrives, it checks the packet header for information that identifies the flow to which the packet belongs ... This flow identification information is extracted from the header of each packet that traverses the network through the multiprotocol switch..."

The Examiner relies on Hedge, columns 8 line 67 through column 9 line 3 which states "... the headers for the protocols further contains course and destination socket numbers..." And column 9, lines 50-54 of Hedge which states "... Switch engine 100 then checks to see whether entries exist in the flow table for both ends of the flow... If entries exist ... the packet is forwarded... If flow table entries do not exist ... the packet is "unresolved.""

Thus, Hedge does describe a system wherein flow information, including socket numbers are forwarded to a server, however, there is no teaching or suggestion that the forwarding is performed via 'a side channel' as recited in the claims.

In contrast the combined teaching of Hedge and Moore, the claim 1 of the present invention recites "...A method for classifying a remote method invocation from a client system that initiates connections to a remote server object using a client and underlying remote method invocation transport code, the method comprising ... detecting when a connection carrying high value data for the remote method invocation is created ... using a custom socket factory to obtain flow information associated with the detected connection, and to generate a socket therefore, the socket having a socket number associated therewith ... *using a side channel to communicate flow information, including the socket number, associated with the detected connection to a classifying router;* and incorporating *this flow information into a differentiated services classification subsystem of the classifying router ...* "

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Neither of the references, in isolation or combination, describes nor suggests either "using a side channel to communicate flow information..." or "incorporating this flow information into a differentiated services classification..." Accordingly, for at least the reason that the combination of references fails to teach or describe several limitations of the claims, it is respectfully requested that the rejection be withdrawn. Claims 2 and 4-6 depend upon claim 1, serve to add further patentable limitations to claim 1, but are allowable for at least the reasons put forth with regard to claim 1.

Claim 7 includes limitations similar to those described above which differentiate over the combination of Hedge in view of Moore. For example, claim 7 recites "...An apparatus for classifying a remote method invocation from a client system that initiates connections to a remote server object using a client and underlying remote method invocation transport code, the apparatus comprising .... a module configured to detect when a connection carrying high value data for the remote method invocation is created ... a module configured to use a custom socket factory to obtain flow information associated with the detected connection, and to generate a socket therefore, the socket having a socket number associated therewith ... *a module configured to use a side channel to communicate flow information, including the socket number,* associated with the detected connection to a classifying router; *and a module configured to incorporate this flow information into a differentiated services classification subsystem of the classifying router...*" Accordingly, for reasons similar to those put forth with regard to claim 1, claim 7 and its associated dependent claims 8 and 10-12 are patentable over the combination of references, and it is respectfully requested that the rejection be withdrawn.

Claims 4 and 10:

Claims 4 and 10 were rejected under 35 U.S.C. §103(a) as being unpatentable over Moore in view of Hedge in further view of 'Official Notice.'

The Examiner states, at page 6 of the office action "... Moore in view of Hedge does not teach that a classifying client server system for transmitting remote method invocation traffic wherein the side channel is implemented as a Java servlet. However the Examiner takes official notice that the implementation of network modules using Java as the implementation language is well known. It would have been obvious to implement the side channel as a Java servlet in the current invention because doing so would result in a platform independent module that could be used in a variety of network equipment..."

Applicants note that, as described above, neither Moore nor Hedge teaches a side channel, much less a side channel implemented as a Java servlet. Thus, Applicants challenge the Examiner to show such a structure or withdraw the rejection of claims 4 and 10.

Claims 5 and 11:

Claims 5 and 11 were rejected under 35 U.S.C. §103(a) as being unpatentable over Moore in view of Hedge and further in view of Galyas (U.S. 6,687,226).

The Examiner states, at pages 6-7 of the office action that "Moore in view of Hedges does not teach the method of claim 1 further including marking the traffic send by the router based on the differentiated services classification. Galyas teaches the method of claim 1 further including marking the traffic is marked with the differentiated services classification. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Galyas with the teachings of Moore and Hedge because they each teach client server system using classifying routers to achieve differentiated service routing..."

Applicants note that the flow information which is used (in claims 5 and 11) to determine a differentiated service routing is received from a side channel. No such structure is shown or suggested by the combination of references put forth by the examiner. For at least this reason, the rejection of claims 5 and 11 is improper and should be withdrawn.

Claims 6 and 12:

Claims 6 and 12 were rejected under 35 U.S.C. §103(a) as being unpatentable over Moore in view of Hedge and further in view of Jorgenson, U.S. 6,452,915.

The Examiner relies on Jorgensen as teaching 'flow information including the identity' of the client making the remote procedure invocation. However, even if Jorgensen does teach this limitation, it fails to overcome the inadequacies of the Moore and Hedge references as recited above with regard to parent claims 1 and 7. Accordingly, for at least this reason, claims 6 and 12 are patentably distinct over the cited references, and the rejection should be withdrawn.

Applicants have made a diligent effort to place the claims in condition for allowance. However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone the undersigned, Applicants' Attorney at 978-264-6664 so that such issues may be resolved as expeditiously as possible.

For these reasons, and in view of the above amendments, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully Submitted,

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Date

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